

What is claimed is:

1. An artificial intervertebral disc, comprising:

a first baseplate having a first baseplate aperture;

a second baseplate having a second baseplate aperture; and

5 a bearing mechanism coupled to said first baseplate and said second
baseplate;

wherein said first baseplate and said second baseplate rotate relative to said
bearing mechanism; and

wherein rotation of said first baseplate to at least one angular position relative to
10 said bearing mechanism extends said bearing mechanism through said first baseplate
aperture.

2. The artificial intervertebral disc of claim 1, wherein rotation of said second
baseplate to said at least one angular position relative to said bearing mechanism

15 extends said bearing mechanism through said second baseplate aperture.

3. The artificial intervertebral disc of claim 1, wherein said rotation has a range
defined by at least one of the group consisting of a first distance between said first
baseplate and said bearing mechanism, a second distance between said second baseplate
20 and said bearing mechanism, and one or more physical parameters of said bearing
mechanism.

4. The artificial intervertebral disc of claim 1, wherein said first baseplate aperture
has a tapered edge, such that an outwardly facing surface of said tapered edge has a

larger diameter than an inwardly facing surface of said tapered edge, thereby increasing an angle of rotation of said first baseplate relative to said bearing mechanism in which said bearing mechanism does not physically contact said tapered edge.

5 5. The artificial intervertebral disc of claim 1, wherein at least one of said baseplates has an internal semispherical contour.

6. The artificial intervertebral disc of claim 1, wherein at least one of said baseplates has an outwardly facing, domed, vertebral body contact surface.

10

7. The artificial intervertebral disc of claim 1, wherein said bearing mechanism comprises a semispherical bearing and a pair of retaining caps connected to each other by compression locking posts.

15 8. An artificial intervertebral disc, comprising:

 a bearing mechanism;

 a first baseplate coupled to said bearing mechanism and having a first baseplate aperture and a first internal bearing surface shaped to conform with a first contour of said bearing mechanism; and

20 a second baseplate coupled to said bearing mechanism and having a second baseplate aperture and a second internal bearing surface shaped to conform with a second contour of said bearing mechanism;

wherein said first baseplate and said second baseplate rotate relative to said bearing mechanism;

wherein said bearing mechanism is seatable in said first internal bearing surface and said second internal bearing surface; and

5 wherein said rotation has a range defined by at least one of the group consisting of a first distance between said first baseplate and said bearing mechanism, a second distance between said second baseplate and said bearing mechanism, and one or more physical parameters of said bearing mechanism.

10 9. The artificial intervertebral disc of claim 8, wherein rotation of said first baseplate to at least one angular position relative to said bearing mechanism extends said bearing mechanism through said first baseplate aperture.

10. The artificial intervertebral disc of claim 8, wherein rotation of said second
15 baseplate to at least one angular position relative to said bearing mechanism extends said bearing mechanism through said second baseplate aperture.

11. The artificial intervertebral disc of claim 8, wherein said first baseplate aperture
has a tapered edge, such that an outwardly facing surface of said tapered edge has a
20 larger diameter than an inwardly facing surface of said tapered edge, thereby increasing an angle of rotation of said first baseplate relative to said bearing mechanism in which said bearing mechanism does not physically contact said tapered edge.

12. The artificial intervertebral disc of claim 8, wherein a portion of said bearing mechanism is semispherical, said first and second internal bearing surfaces are substantially identical, and said first and second internal bearing surfaces have a semispherical contour.

5

13. The artificial intervertebral disc of claim 8, wherein at least one of said baseplates has an outwardly facing, domed, vertebral body contact surface.

14. The artificial intervertebral disc of claim 8, wherein said bearing mechanism
10 comprises a semispherical bearing and a pair of retaining caps connected to each other by compression locking posts.

15. An artificial intervertebral disc, comprising:

a first baseplate, having a first baseplate outwardly facing surface, a first
15 baseplate inwardly facing surface, and a first baseplate aperture,
said first baseplate inwardly facing surface having a first baseplate
bearing surface along an inward perimeter of said first baseplate
aperture;

a second baseplate, having a second baseplate outwardly facing surface, a
20 second baseplate inwardly facing surface, and a second baseplate
aperture, said second baseplate inwardly facing surface having a
second baseplate bearing surface along an inward perimeter of
said second baseplate aperture;

a bearing defining a spherical contour, said bearing having a bearing

bore;

a first retaining cap having an axial bore and passing through said first
baseplate aperture and into said bearing bore; and

a second retaining cap passing through said second baseplate aperture,

5 said bearing bore, said first baseplate aperture, and into said axial
bore in said first retaining cap;

wherein said first retaining cap is secured to said bearing bore and said second
retaining cap, thereby securing said first baseplate and said second baseplate to said
bearing;

10 wherein said bearing is seatable in said first baseplate bearing surface and said
second baseplate bearing surface; and

wherein said first baseplate and said second baseplate rotate relative to said
bearing mechanism.

15 16. The artificial intervertebral disc of claim 15, wherein said rotation of said first
baseplate is limited by interference between said first retaining cap and said first
baseplate aperture, and wherein said rotation of said second baseplate is limited by
interference between said second retaining cap and said second baseplate aperture.

20 17. The artificial intervertebral disc of claim 15, wherein said first retaining cap is
compression lockable to said bearing and said second retaining cap.

18. The artificial intervertebral disc of claim 15, wherein said first baseplate aperture
has a tapered edge, such that an outwardly facing surface of said tapered edge has a

larger diameter than an inwardly facing surface of said tapered edge, thereby increasing an angle of rotation of said first baseplate relative to said bearing in which said first retaining cap does not physically contact said tapered edge.

5 19. The artificial intervertebral disc of claim 15, wherein at least one of said first baseplate and said second baseplate has an internal semispherical contour.

20. The artificial intervertebral disc of claim 15, wherein at least one of said first baseplate and said second baseplate has an outwardly facing, domed, vertebral body

10 contact surface.